

CACTUS AND SUCCULENT JOURNAL

Of the Cactus And Succulent Society
Of America

Vol. XIII

JULY, 1941

No. 7



FIG. 54

Yucca australis Engelm. photographed by
W. S. Turnpaugh in Mexico.



CACTUS AND SUCCULENT JOURNAL

Published and Owned by the Cactus and Succulent Society of America, Inc., Box 101, Pasadena, California. A monthly magazine to promote the Society and devoted to Cacti and Succulents for the dissemination of knowledge and the recording of hitherto unpublished data in order that the culture and study of these particular plants may attain the popularity which is justly theirs. Subscription \$3.00 per year. Foreign \$3.00 per year by international money order. Membership in the Cactus Society free with subscription. Mail application to SCOTT HASELTON, Editor, Box 101, Pasadena, Calif. Editorial Staff: THE ENTIRE SOCIETY. Entered as Second Class Matter at Pasadena, Calif., under act of March 3, 1879.

Vol. XIII

JULY, 1941

No. 7

Agaves or Desert Lilies.....	Mary Beal	103
A Letter.....	H. C. Shetrone	107
Cactus Exhibit in Hawaii.....	Star Bulletin	108
Two Crassulas Confused.....	Vera Higgins	109
Moving a Cactus Collection to Wisconsin.....	Alice and Al Gee	111
Show Winners.....	E. S. Taylor	112
Magazine Review.....	Hildegard Smith	113
<i>Crassula perfoliata</i>	Mildred Orpet	113
Euphorbia Collection.....	C. W. Armstrong	114

FRONT COVER ILLUSTRATION

The picture on page 101 shows a Yucca which grows very abundantly all around this part of the country, some call them Joshua Trees, some call them Yucca plants and the natives mostly call them Palmilla, pronounced Palma, meaning little Palm. The tree has 6 clusters of blossoms on it, each of the blossoms are from 3 to 4 feet long and the height of the tree is around 35 feet.

The spot where I took this picture is about 35 or 40 miles from Monterrey and on the Laredo, Mexico City, highway. In that spot one can stand and look around and could count easily one thousand trees like this one or smaller.

W. S. TURNPAUGH.

CONVENTION NOTICE

The August JOURNAL will contain the names and addresses (notice Mississippi members) of all those who attended the Convention in St. Louis. Please mail whatever snapshots you have and we will show the other Society members what they missed. There will be a group picture and a complete report about the most successful cactus convention that has ever been promoted by any three-term president.

CACTUS PUBLICITY

All Society members are interested in cactus and succulent articles which appear from time to time in magazines and newspapers throughout the country. We should publish in each JOURNAL a list of such articles as they appear. Won't you please report such articles stating: 1. The name of the paper or magazine, with its page number; 2. The actual publication date; 3. where copies may be obtained and the cost.

The JOURNAL especially needs articles on bowl and flower arrangements. Many of our commercial friends should contribute the former while the latter subject offers a real worthwhile challenge to those who enjoy cut flower arrangements. The leaf and branch forms of all succulents are most interesting in decorative arrangements.

MEXICO'S CONTRIBUTION

The Mexican Government has presented the City of New York with 2000 Mexican cacti. They are now on display at the Rockefeller Center. Later the cacti will be given to the Bronx Botanical Garden. All cacti lovers who visit New York City should see this display.

DANIEL NEUMANN, JR., Cincinnati, Ohio.

COLORADO CACTI

We are glad to announce that this monograph by Dr. Charles H. Boissevain and Carol Davidson can now be obtained direct from the senior author, Rt. 1, Box 50, Colorado Springs, Colorado, for \$1.00. The volume is artistically board-bound in heavy craft linen and stamped in green. Many of our JOURNAL readers will want additional copies even though they bind their installment sections. At the end of the year we will publish a notice in the JOURNAL that their sections can be bound at the same time we are binding Vol. XIII of the JOURNAL.

Mount Dora, Florida.
P. O. Box 526

EDITOR THE CACTUS JOURNAL:

Have just taken blue ribbon, gold star and favorable annotation at First Florida State Flower Show, Orlando, sponsored by Mead Gardens of Winter Park, a division of Rollins college. My exhibit was a collection of 36 Haworthias and 30 Crassulas in 5 inch uniform pots.

Had many inquiries "Do you ever sell these?" etc. Am supposed to be an amateur only, but have often wished to sell propagations in order to have money for new plants. I am acquainted with several other "amateurs" in same fix. Can't we have an addition to the classification of "collectors," "botanists," "specialists," "fanciers," "growers," "dealers," "amateurs," etc? Call it perhaps "assemblers" or "self supporters" to cover us who are at a standstill for lack of funds to branch out? A dollar taken in once in a while means an exciting new species and a chance to spread knowledge and love of succulents among real amateurs by letting them go home with a "find" "out of a private collection."

HELEN C. DORNE.

THE PRICE OF VACATIONS

Please make the following changes in your June JOURNAL.

Transpose page numbers 94 and 95 and read Ladislav Cutak's excellent article in Japanese fashion—right-hand page first and then the left-hand page!

On page 98 correct the spelling of *Leuchtenbergia* and on page 99, second column, 11th line to read "clavate, perianth persistent, fruit 20 to 25 mm. long, ripening in—"

APOLOGETIC EDITOR.

Agaves or Desert Lilies

By MARY BEAL, *Sketches by* NORTON ALLEN

Courtesy *Desert Magazine*, El Centro, Calif.

Call them century plants if you wish, as Americans generally do, or mescal, or maguey. To botanists they are Agaves, aptly named from the Greek word meaning "noble."

Most of the Agaves are mountaineers and rather choosy as to mountains, preferring arid rocky locations. They climb from barren foothills to high ridges of rugged ranges, giving an

accent of distinctive individuality to any area they frequent.

For one or two dozen years the Agave does nothing but grow and wax fat, biding its time until the urge of destiny rushes it with amazing rapidity into a magnificent flowering. After this achievement the plant dies, posterity assured by



FIG. 55

Budding flower stalk of the mescal, or Agave. The bud, when it first appears is best for roasting purposes. The desert Agave spends many years preparing to send out this one flower stalk which resembles an immense stalk of asparagus—and then dies as soon as its flowering season is over.

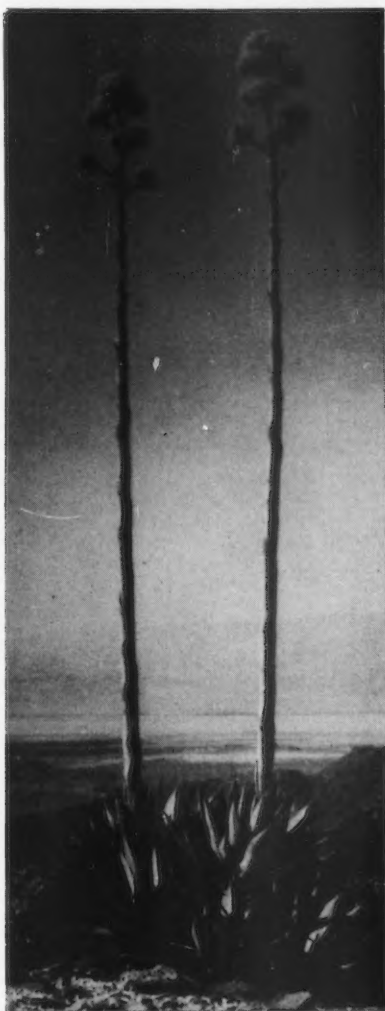


FIG. 56

seeds and off-shoots from the base.

Among the notable exceptions to this rule are some of the smaller Arizona species such as *A. Schottii*, *A. toumeyana*, *A. parvifolia*, *A. Treleasei*, which frequently survive the flowering period.

When Agaves are used in landscaping the plant can usually be saved by cutting the flower stalk after it is well started. Prediction of the approaching bloom can usually be made the fall before, by the increased thickening of the leaf bases and the wider angle of the terminal shoot.

Primitive Indians probably found more uses for the Agave than for any other plant. Fibers,

pounded out from soaked leaves, made cord for bowstrings, ropes, fishlines, nets, for weaving garments, saddle-blankets, and sandals. It was useful in basket-making and for brushes, and the roots of some species made a substitute for soap, producing a fine lather. The young flower-scape at a tender stage provided the food treat of the year, roasted in pits used year after year, the remains of which by charred embers and ashes still mark the sites of old feasting.

While Agave blossoms normally in the spring months, Lieut. W. H. Emory on the Kearny expedition to California in 1846, reports finding one of the stalks in bloom near Carrizo creek in California November 29. In his diary of that day Emory wrote: "We rode for miles through the centennial plant *Agave americana* (evidently the plant now classified as *deserti*) and found one in full bloom. The sharp thorns terminating every leaf of this plant were a great annoyance to our dismounted and wearied men whose legs were now almost bare. A number of these plants



FIG. 57
Agave utahensis

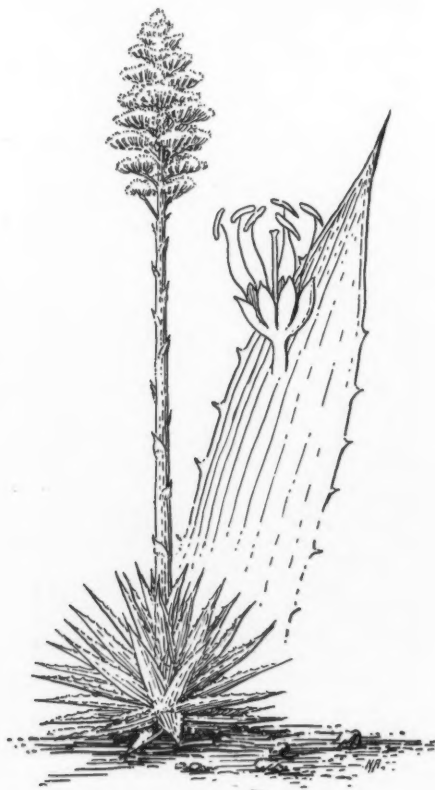


FIG. 58
Agave deserti

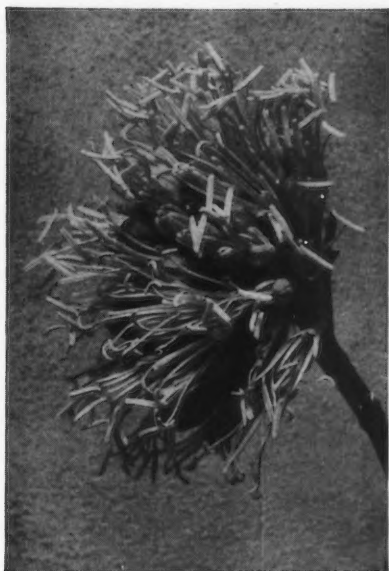


FIG. 59
Showing detail of the terminal cluster of
Agave deserti.

were cut by the soldiers and the body of them used as food."

The matured flower stalks of the Agave are

pithy but have some strength and were used in some instances by desert Indians in the construction of crude ramadas or shelters.

According to some authorities the black seeds of the Agave were used for food, being ground on the metate and added to the meal of the mesquite bean in the making of pinole.

Following are described some of the more common species of Agave found in the southwestern desert region:

Agave utahensis (Engelm.)

This slender member of the clan has the most northerly range. Its fine plants grace the Grand Canyon area and it thrives in several northeastern Mojave desert ranges, in the Death Valley region and through southwestern Nevada into Utah. It is listed for the Providence mountains but I have never found it there. Its close tuft of leaves is dull blue-green six to 12 inches high, each hard, narrow dagger white-margined with sharp curved teeth and apexed by a spine one to three inches long.

It sends up a slender stalk four to 10 feet tall, with pale-yellow tubular blossoms an inch or two long in clusters of two to four at short intervals along the stem. The thrill of finding my first Mojave desert Agave, the *utahensis*, on Clark mountain was heightened when a sharp thunderstorm sent us scampering to the car for shelter. Presently, from the clearing rain

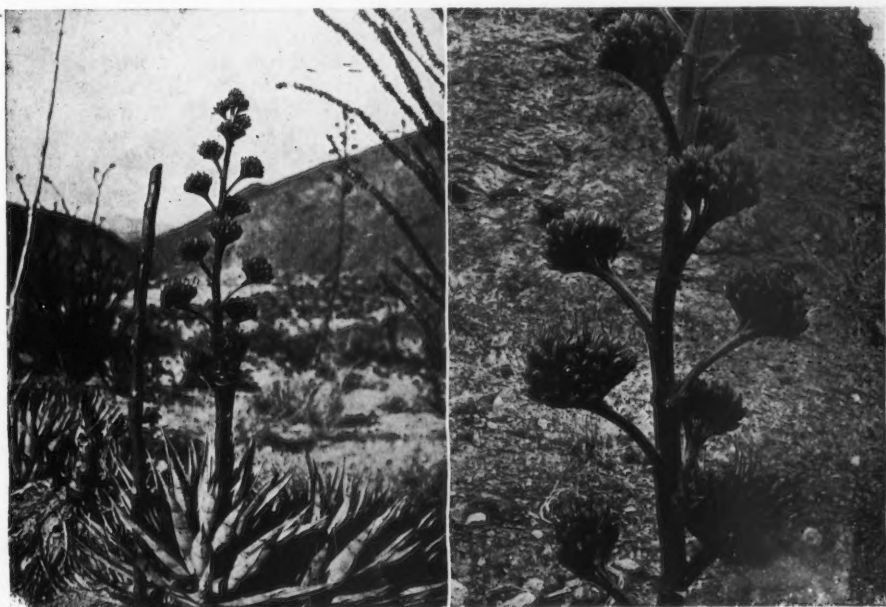


FIG. 60

Agave deserti or Desert Century Plant with its ripening fruit. Photo by Francis Marion Fultz in
Lily and Orchid of Southern California.

emerged the unforgettable picture of a hillside abounding with Agave stalks outlined against the shifting clouds.

Agave deserti (Engelm.)

A more spectacular species, *Agave deserti* flourishes on arid slopes of mountains bordering the Colorado desert on the west, often crowded into dense colonies 10 or 15 feet across. The Santa Rosa and Laguna mountains are particularly favored haunts. It is found also in the Providence mountains, Whipple mountains and other Colorado river ranges. The fleshy whitish-green leaves form a perfect rosette one to two feet high and two to three and a half feet across. Each stiff lanceolate leaf, edged by strong hooked prickles, is tipped by a long spine. From the heart of this dagger cluster the stout flower-stalk rises eight to 21 feet, the upper part a panicle of 10 to 20 branches, each ending in a dense bunch of yellow flowers with long stamens protruding into a bright golden fluff. The flower-cups overflow with honey, making every

blossoming Agave a sweetshop for questing bees and hummingbirds.

Finding *Agave deserti* in the Providence mountains brought me the most delightful botanical surprise of 29 desert years. I had not found it listed for that region. There it displays some characteristics which may entitle it to a label of a special variety. It lacks the gregarious habit, forming no close colonies, and as often as not the flowers and stalks are a rich red instead of yellow. Frequently they choose tantalizing spots difficult to reach, amid jagged pinnacles, perched on narrow ledges or atop sheer walls.

For weeks every spring I botanize the Providence mountains. Agave rosettes and dead stalks are common but I found none in bloom until near the end of my second season, when a prospector's report sent me scurrying to a limestone spur a few canyons up the range, the prelude to several more discoveries between Mitchell Cavern and the Bonanza King. This year dozens of blossoming Agaves rewarded my mountaineer-



FIG. 61

Agave albicans with flower stalk four feet high growing in the garden of Frank Mark, Los Angeles. This is one of the smaller types suitable for garden culture. Haselton photo.

ing. I followed all the branches and forks of accessible canyons to their heads, finding my own trails, scrambling over steep rock masses on hands and knees, sometimes hard-pressed for secure finger-grips and foot-holds, little dog Nig my usual companion.

Agave consociata (Trel.)

So like *deserti* is *Agave consociata*, with the same habits and frequenting similar habitats, the novice sees no difference and some botanists discard it as a species. It ranges from the eastern flanks of the San Jacinto mountains to eastern San Diego county and Lower California. Identify it by blue-green leaves, slender scape six to 12 feet tall with rather sparse panicle, and a spindle-shaped, short-pointed ovary.

Agave Schottii (Engelm.)

This is the common Arizona species, abundant in the Santa Catalina mountains. The light blue-green leaves six to 12 inches long, are sparsely prickly-edged, the margin shredding into fibers. The slender scape four to six feet tall, bears scented, somewhat curved yellow flowers. It follows the usual family customs.

Agave Palmeri (Engelm.)

In Arizona and New Mexico the Palmer Agave displays a rosette of blue-green leaves 18 to 30 inches long, margined by slender grey or garnet hooked prickles. The leathery, creamy flowers are two to two and one-fourth inches long, with deep tube, the ovary one inch.

Closely related to *A. Parryi*, Engelm. are: *A. huachuensis*, Baker, broad leaved native of the Huachuca mountains, and *A. couessi*, Engelm., leaves rather oblong, very rigid, grey, smooth; flowers rather large, yellow.

In addition to those mentioned Dr. L. H. Bailey lists the following Agaves as native of New Mexico: *A. chihuahuana*, Trel., leaves short, broad, thick; fls. rather large and yellowish. *A. Hartmaini*, Wats. similar to the Arizona *A. parviflora*, but somewhat larger. *A. falcata*, Engelm., called "guapilla" and furnishes an important part of the ixtle of N. M.; flowers purplish, leaves broad and hard-fibrous. *A. bracteosa* Wats., leaves grey, spineless.

Arizona's Pinal mountains sport a small species, *Agave toumeyana* (Trel.) with small blossoms and leaves only two to four inches long, the capsule ovoid. A dozen or more species range along the Mexican border from Texas to California. In Mexico are many more, the best known the imposing century plant of cultivated gardens, *Agave americana*, one of the sources of Mexico's fiery tequila.

FELLOW-MEMBERS OF THE CACTUS AND SUCCULENT SOCIETY:

During the month of March the undersigned, with his family, realized the ambition of every true Cactus Fan—a visit to Headquarters! In other words, we had a full ten-day sojourn in Southern California, where we met and visited with the folks who make possible our Society and its JOURNAL, and those who supply us with most of the cherished specimens in our collections.

And friends, you'd just have to meet them to appreciate them! And since they'd never in the world reveal themselves to you in their true light (they're modest folks), I'm hoping that The Editor will permit me to do so in my own small way.

Well, to begin with, there's Scott Haselton; young (though he declares he isn't), pink-cheeked, affable, and a human dynamo for work. I might say at this point that most of our officials are men with other and perhaps more important interests, and that their interest in succulent plants is in great part a labor of love. That's why we get so much for so little.

Then there was the pleasure of participating in the March meeting of the Society—a swell course dinner at a swell French restaurant, followed by the business session at the hospitable home of President Marshall. I wish you all might know what an indefatigable president he is!

A highlight was a half-day at the noted Huntington Gardens—and are they breathtaking. Desert plants, in great variety, growing in naturalistic settings! A visit to the great Stapelia collections of Messrs. White and Sloane, just out of Pasadena, revealed unsuspected wonders; not only Stapeliads, but some marvelous Euphorbias as well.

Several days were consumed in browsing around the gardens and greenhouses of the several growers in the Los Angeles district. First was Mrs. Bakkers, at San Diego. She has an amazingly interesting garden, and she is an amazingly interesting person. She declared that we reminded her of a cat turned loose in a catnip patch!

Other visits were to the plant of our fine friends Dr. Poindexter, at Compton; Hummel's Exotic Gardens, at Inglewood—and are they charming people, with a wealth of beautiful plant material. We had always wanted to meet Gilbert Tegelberg, and we did. He's to the manner born, if that means anything. Offered us anything in his garden, but we just couldn't impose on such generosity. Friend Edgar Baxter took us to his home in Bellflower, and gave us some rare plants from his recent trip into Mexico.

And, folks, if you ever get to California, don't fail to run down to Johnson's Cactus Gardens, at Hynes. Maybe you won't be so fortunate as the writer (Sunday dinner with Harry Johnson, Mrs. Johnson and the nice kiddies) but you will see hundreds of thousands of lovely things, all of which would just fit nicely into your collection.

You could easily spend days with Frank Mark where you would see grafting demonstrated and thousands of interesting crests.

Well, there's R. W. Kelly at Temple City; he's a swell fella, and such lovely plants! We wanted so much to meet Sherman Denny at Huntington Beach, but just couldn't get there. I'm sure I've missed some one; if so, "didn't go to mean it."

Naturally, we spent all our wife's money for plants; four fine shipments have just been unpacked—and now, what'll I throw away to make room for them?

H. C. SHETRONE,
Ohio State Museum, Columbus, Ohio.

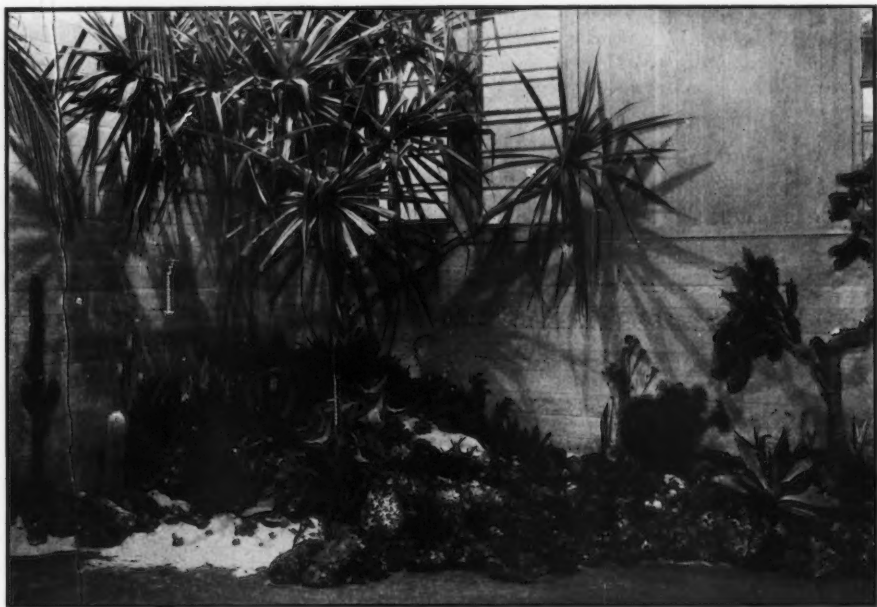


FIG. 62

This cactus garden is a miniature of one of the nooks in the cactus garden which Mr. and Mrs. Hector McD. Moir have developed about their home at Poipu beach. Many of the plants were blooming during the two days of the fair.

Cactus Exhibit in Hawaii

Mr. William Cartwright of Honolulu sends us this interesting clipping regarding their show.

CACTUS GARDEN FEATURES KAUAI FLOWER SHOW

(Special Star-Bulletin Correspondence)

LIHUE, Kauai, April 19.—A cactus garden which can be grown by residents of the leeward side of any one of the islands and who have sandy, rocky soil was exhibited by the young women in charge of the flower show of the 12th annual Kauai county fair.

Mrs. Karl Berg, in charge of the flower show, and her assistants arranged the cactus garden as the chief decorative interest for the Lihue armory in which the show was staged.

Mrs. Hector McD. Moir of Poipu beach, who is the grower of what is considered the finest collection of cactus in Hawaii, assisted Mrs. Berg and contributed the collection of flowering aloes, airplants, sedums, tall cereus, cacti and other succulents which were used for the display.

The garden was built around a living hala tree with a sandy floor on which were piled lichen covered rough lava rocks. Accent was added to the garden by placing a lily pond in one corner. Miniature types of cacti were placed in the sand. The odd shaped cactus such as ordinary panini and rare shaped trees of cactus and cereus were placed in the rocks in natural positions. The whole garden formed a picture in soft yellows, browns, greens and reds.

Living coconut trees were used for the chief decoration in keeping with the cactus garden for the other walls in the armory. The potted plants were exhibited in tiers under a large coconut tree behind a bank of papyrus blooms. The orchids were displayed in front of a window frame screened with braided coconut fronds.

Fair officials and the judges praised the entire decoration scheme as one of the most attractive settings ever used for the flower shows for which the Kauai fair is noted.

Officials also praised the young women on Mrs. Berg's committee who carried out the work of the flower show in an efficient and smooth manner.

SUCCULENTS FOR THE AMATEUR—by Brown, White, Sloane, and Reynolds. Edited by Haselton. Written for the beginner, this book introduces one to more than 800 of the best succulents. Clear illustrations show 400 named kinds which include those usually found in amateur collections. 172 pages with 11 color plates of 88 succulents. Paper bound \$1.50. Cloth bound \$2.00. Postage 3c, foreign 15c.

Box 101, Pasadena, Calif.

CACTI by Borg is now available at \$6.60. One of the most helpful books. Written in English. Describes 1100 species and has 93 illus. Box 101, Pasadena.

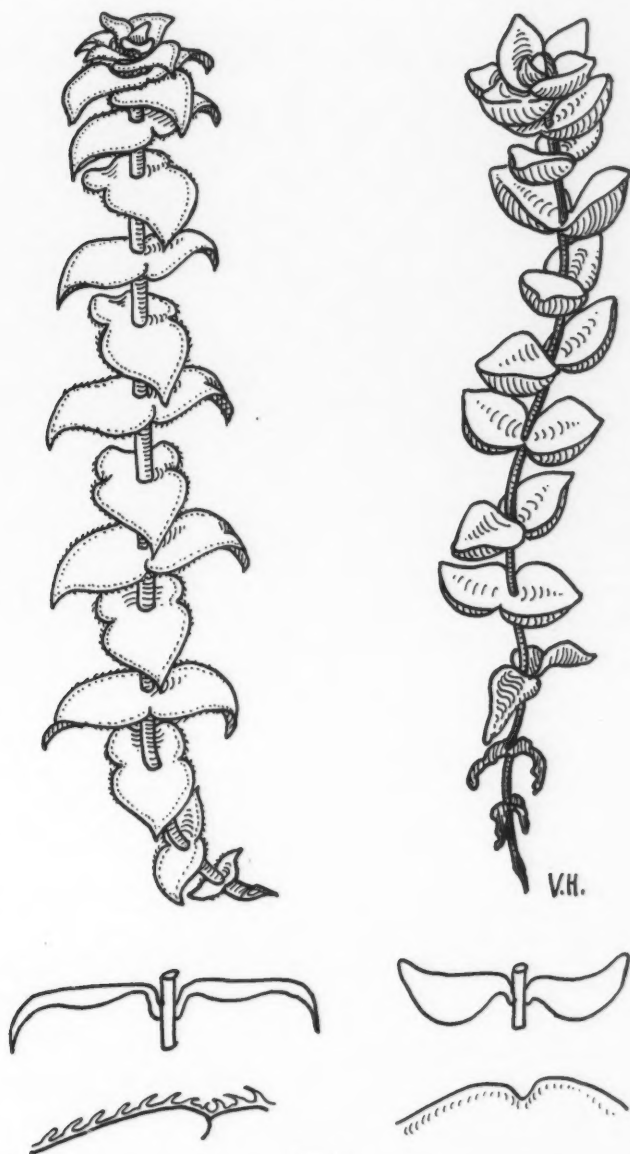


FIG. 63
Crassula perforata Thunb. and *Crassula rupestris* Thunb. Sections and edges of leaves

TWO CRASSULAS CONFUSED

By VERA HIGGINS

Several of the *Crassulas* have the pairs of leaves so closely united as to appear threaded along the stem; two of these—*Crassula perforata* and *Crassula rupestris*—are well known in culti-

vation and some people may have been puzzled by the apparent similarity of the two as shown in illustrations. If the descriptions are consulted, the distinction between the leaf forms is clear;

in *C. perforata* the leaf edge is "cartilaginous and ciliate" whilst in *C. rupestris* it is smooth. The brief descriptions given by Alwin Berger in his Monograph on the family make this clear, but the illustration he gives shows a plant with smooth edged leaves which is yet labelled *C. perforata*. Berger appears to have followed S. Schonland who, in "Materials for a Critical Revision of Crassulaceae" in *Transactions of the Royal Society of S. Africa*, 1929, gives similar descriptions; as synonym of *C. perforata* Thunb. he gives *C. perfossa* DC. non Lam., and as synonym of *C. rupestris* Thunb. he cites *C. perfossa* Lam. Lamarck certainly described a crassula of this type under the name *C. perfossa*, and De Candolle quoted this description in conjunction with an illustration in his great work, "Plantes Grasses" t. 25, but he did not give any separate description of a crassula under this name, so that Schonland's citation of "*C. perfossa* DC. non Lam." is meaningless; there is no such thing. The illustration given by De Candolle, therefore, is not of a plant which he had himself described but of Lamarck's plant, in other words, it represents, in modern nomenclature, *C. rupestris* Thunb. and not *C. perforata* Thunb. Berger's illustration is copied from De Candolle and is of *C. rupestris* not *C. perforata*.

Unfortunately, this is not the end of the story; later writers have followed Berger and the illustration in the excellent Dutch book on *Succulent Plants*, published in English in America, shows a plant of *C. rupestris* labelled *C. perforata* (Fig. H, p. 36).

Apart from the distinction of the leaf edge, the leaves of *C. perforata* are thinner than those of *rupestris*, especially towards the edge and, as a rule, the plant is more erect in habit; *C. rupestris* normally has prostrate branches turning upwards at the tip. The accompanying sketch shows the distinctions.

EDITOR'S NOTE: Our well-known friend Vera Higgins of England has been revising the sections dealing with succulent plants for the new edition of Nicholson's Dictionary which the Royal Horticultural Society hopes to publish when the war is over and, among other genera, she has been doing the Crassulas. Mrs. Higgins says, "Not for the first time have I been bothered with the distinctions between *C. perforata* and *C. rupestris*; I thought I knew the plants apart but, on looking up what Berger says is an illustration of *perforata* in De Candolle, I found what I should have regarded as an excellent representation of *rupestris*. So I tried to find the snag which seems to be an error made by Schonland and copied by Berger. I think other people may have been similarly puzzled so am sending you a note on the subject in case you think it is worth putting in the JOURNAL."

"In your book *Succulents for the Amateur*, which I

have found most useful (the pictures alone are a joy to look through) you give the Dutch illustration as *C. perforata* and a photograph (Fig. 149) of *C. rupestris*, but I believe they are of the same plant. One expects to follow such authorities as Alwin Berger without question and it was only the fact that I am the fortunate possessor of a copy of 'Plantes Grasses' that made me look it up and find the snag."

"I am very honored to hear I have been elected a Fellow of your Society. It is sad that our Society cannot function at the moment; such of our members as have time to spare are keeping up their collections. I hope to bring my own plants safely through; they have survived so far, despite a good deal of broken glass."

STRANGE FACTS

To-day, in the mad rush for "bigger and better gardens," let us pause for a moment to hear what the world had to offer back in the year 1827, just one hundred and forty-four years ago. It makes one wonder in what a laughable light the cactophile of one hundred and forty-four years hence will regard our puny but earnest efforts of 1941—an uncomfortable thought.

But let us listen to these oracles of the past, as recorded in the Encyclopedia of Gardening.

"At the change of the moon, pull your beans before daylight; to prevent rats and mice from preying on a vineyard, prune the vines in the night-time; sow vetches before the twenty-fifth day of the moon."

According to Columella, an ancient botanist, "husbandmen who are more religious than ordinary, when they sow turnips, pray that they may grow both for themselves and for their neighbors."

Much more fantastic, however, is the statement of Democritus regarding the extermination of caterpillars. "A woman," he writes, "going with her hair loose and bare-footed three times around each bed infested with caterpillars, will kill them. Women must rarely be admitted where cucumbers or gourds are planted," he continues, "for commonly green things languish and are checked in their growth by their handling of them."

And, by the way, "The Rural Economy" of Columella is in twelve books, of which the eleventh, the one on gardening, is in verse. Thank heaven, he is not writing for the JOURNAL. If he were, we would indeed have a horticultural gem for posterity!

FRANK R. MARK.

BOOK REVIEW

Science in the Garden by H. Britton Logan and Jean-Marie Putnam with Lloyd Cooper, consultant. Page size 6 by 9 inches, 255 pages, 5 illustrations. Published by Duell, Sloan & Pearce, Inc., 270 Madison Ave., N. Y. Price \$2.50.

Although this interesting book does not mention succulents, it is extremely worthwhile for those who want to know the *why* of growing plants. The chapter heads describe the varied subject matter which is most interesting: Science and Practice, Soils, The Twelve-Year Bed, Plant Nutrition and Fertilizers, Chemical Analysis of Soil, Mulches and Cultivation, Vitamin B₁, Pioneering with Light, Evolution of New Plants, Miracle Workers. Colchicine and Acenaphthene, Chemical Acceleration of Seed Germination, Modern Seed-Sowing Practice, The Miniature Greenhouse, Control of Pests, Plants Without Soil, Chemical Control of Weeds, Experiments for Amateurs, etc.

Moving a Cactus Garden to Wisconsin

You know the only thing different about California and any other section is the fact that you folk out in the big west just go ahead and brag. For instance:

You all rave about the beautiful wild flowers in spring, the *Times* runs colored pictures about them, and Richfield puts out a little book about 'em. There's a flower carnival around Arvin annually. Tourists come from all parts of the country to travel the Ridge Route to see the "carpet of colors." But in Wisconsin—we call them WEEDS.

Honestly, I counted over three dozen artistically blooming wild plants, all different, and within a radius of no more than six city blocks. You see, we wanted to get a little place to live that was as far from civilization as possible; so we managed to find a home on the west side of town, with our nearest neighbor about one hundred yards away. In fact, there is only one other house on our block. So we're really country persons; for a while anyway, until the neighborhood gets built up. (Civic note: Milwaukee home building has been increasing rapidly during the last twelve months.) Being out here, we have been able to enjoy the wild weeds. Only we're still Californians, reckon, 'cause we just go right ahead and call 'em wild flowers. Whole fields of them, spreading a carpet almost like out west. Wild May Apple, daisies, dandelion, wild snapdragons, strawberries, thorn apples, oh, yes, goldenrod and ragweed (kerchooooo!!!), thistle, mustard, clover (two or three different kinds and sizes and colors); and plenty more. Weeds? No siree, them there things is wild flowers to we'uns.

California has a rainy season. It gets all wet and cars get stalled and streets are flooded and the newspapers talk about it and the radio makes announcements and Bob Hope says funny things about it and everything. Here in Wisconsin, we just say it's spring and let it go at that. Then we've lots more rain throughout the summer months and some more in fall and snow in winter and then it gets to be spring again. Only nothing is ever said about the rain. Only the weather man writes, "Unsettled with possible showers." And man goes about his business.

Our own plants had been established in California soil in an all year outdoor garden. When we planned to move to the East, we selected about ninety varieties with which we had fallen in love—and just couldn't fall out of love. We thoroughly washed the roots, destroyed all "bugs," wrapped them well in newspaper clippings and sent all via the express route. Nope, not quite all; there were about five specials that were in a miniature glass house and they went on the floor of our sedan, to travel right along with us through the west, south, and up the Mississippi banks to Milwaukee. The only state inspection was in crossing the California-Arizona line where they passed without question as they looked, and actually were, clean plants. These plants are still doing very well: *Mammillaria plumosa*, *M. bahiana*, *Oreocereus Trolletii*, *Cephalocereus senilis*, and *Espositoa Dantwiltzii*.

We originally packed the others in December. We wrote instructions to unpack them as soon as they arrived in Milwaukee, and to set them out in a dry coolish place where they would get some sun. That was all that was done to them until our first opportunity, on May 10, to handle them personally. Up to that time they had absolutely no soil, no manner of taking in

nourishment. This period of rest proved a little drastic to some of them. Of course, it didn't all happen at one time, but this attempt to grow in anti-California soil gradually broke the hearts of about a dozen and a half. These decided to say "Adios," and seek a happy hunting ground.

Among those first to go were: *Pleiospilos Bolusii*, *Faucaria tigrina superba*, *Bryophyllum tubiflorum*, *Titanopsis Luckhoffii*, *T. Schwantesii* and *Fenestraria rhopalophylla*.

Another one which was lost, this was one of our favorites, was *Lophocereus Schottii monstrosus*. This went the way of all flesh just before we had time to put it in a pot. It was one foot high when the solitary reaper came along. (Amen)

Two *Echinopsis* died, also *Euphorbia lactea*. This latter plant was in perfect condition after potting. To take special care of it, we put it in our dining room near a window; but the coal heat of the house gave it trouble and finally it gave up the ghost (or whatever a plant's got to give up).

One plant we collected on our trip to Cave Springs, *Sclerocactus polyancistrus*, was our particular pride because we were told by So. Cactus Exchangers that it was difficult to grow. It did so well in our Culver City garden; also lived throughout the train ride to Wisconsin and the long recess in the basement, even stood the transplanting into a potted area. Then after a time, and without cause whatsoever, the dern thing up and pined away.

Among the better ones that stopped living were: *Echinocactus Grusonii* (it was a good seven inches in diameter); *Malacocarpus Leninghausii* (graft); *Aporocactus flagelliformis* (grafted) this is the one most current to die. In all we lost 24 plants. But we saved 72. Most are doing quite well. Some have not shown much sign of actually growing, but others have developed a real spurt.

One peculiarity noted in Wisconsin, from friends who have kept cacti we had formerly sent them as gifts, is that the plants seem to get very elongated. Maybe this is because they are kept in glass rooms with lots of indoor sunshine. But quite possibly it may be because they have not known how to take care of their plants, these prickly sort of things being kinda foreign to them.

So into Wisconsin my wife and I brought our idea of a California rock garden. Right outside of our kitchen window, where the garden gets lots of morning sun, is our pride and joy. First the soil was turned over; then rocks about a foot deep were laid. Over this came coarse sand and gravel. Now began the setting of the pots, assorted according to family and ability to take water and sunshine. Lastly, the pots were banked with more rocks and sand until they became level with the top surface, making them appear to be actually growing in the rock garden.

A real western looking rock garden was set right outside our kitchen window where Mrs. Gee could watch it while baking me a cake. It really looked neat. Friends admired it. So did the milkman and the fellow who sells brushes. The plants really got into the outside garden during early July. One can hardly trust this country's weather before June 15th.

During the warm summer they did pretty well, quite a bit of new growth, and some flowers. They were

sprinkled according to the amount of heat and sunshine received, relatively the same treatment during these months as had been given them out west.

Comes September 20th and, fearing possible frost, up came the potted plants. They were moved into a first floor room that was generally known as our "overflow" room, but which now took on the official title of "Cactus Conservatory." We intended to keep the room temperature between 40 to 50 degrees, only our heating arrangement of the household kept the degrees hovering over 60. So we built a few shelves for the basement windows and set as many plants as possible upon them.

In general, the remaining plants, numbering over half a hundred, look pretty good. Those particularly worthy of mention include: *Echinofossulocactus* (all of which are doing very well), *Astrophytum* (we have three types), *Oreocereus celsianus*, *Gymnocylindrus*, *Echinopsis* (in California these flowered very prolifically. We have had no blooms in Milwaukee to date), *Mammillarias*, and *Lophocereus Schottii*.

Cacti do far better than succulents in this territory, it seems, as many of the succulents have suffered the most.

Snow's on the ground while this is being written (Feb. 26). In fact Milwaukee has had almost continual white covered ground since November 28, 1940. But the citizens say that this is "unusual" (wonder where we former Californians heard that word before?) Anyway, our cacti will be housed indoors for a couple of months longer. Then we shall take them out and cover them against possible settling frosts. They should get out of doors to acclimate them to the change of air again. This is an annual affair.

By the way, have you heard that a pair of two and one-half year old giraffes brought into the Milwaukee Zoo were fed the following on their trip from Africa: 22 bales of hay, 100 lbs. bran, 150 lbs. crushed oats, one piece of rock salt, 200 carrots and FIVE BAGS OF CACTUS. So if any of you members are contemplating buying a giraffe as a house pet, you've nothing to worry about on the menu end of the deal.

ALICE AND AL GEE.

2914 N. 80 St., Milwaukee, Wis.

SHOW WINNERS

At the recent Los Angeles Cactus Show held June 14th and 15th, at the Manchester Playground, 8800 South Hoover Street, Los Angeles, Calif., Mr. Hubert Monmonier, a member of the Southwest Cactus Growers, who arranged the show, won the Sweepstakes Cup, presented by City Councilman Wilder W. Hartley, for a fine mixed group of cacti and other succulents. Among his other awards were a Cup, presented by Councilman Earl C. Gay, for the best general collection of cacti; an order for the new book "Naming Cacti" by Marshall and Bock, presented by Dr. and Mrs. Frank Cariss, for the best garden. Seven other firms were taken by Mr. Monmonier.

A Cup for the most original exhibit, presented by Sheriff Eugene Biscailuz, was won by Mrs. Francis Runyon, who also had the best educational exhibit, and so gets the rotating cup presented by Mr. John Akers, her fine *Notocactus otonis* (Lehmann) Berger, was judged the best flowering cactus.

A Cup for the rarest xerophyte, presented by Hummel's Cactus Garden, in Inglewood, Calif., was won by Mr. John Akers of Compton, Calif., for his *Haworthia Parksiana* V.P. Mr. Akers also won a Cup,

presented by Councilman Charles A. Allen for the best general collection of succulents of which one, *Hoodiopsis Triebneri* Luckhoff, was the best grafted succulent.

The rarest cactus at the show was, *Neogomesia agavioides* Castenada, described in the June issue of the CACTUS AND SUCCULENT JOURNAL. These two tiny plants, recently discovered in Mexico, were shown by the National Cactus and Succulent Society of America.

A Cup for the best educational exhibit under 2 1/2 x 4 feet, presented by August Greenhagen, was won by Mrs. Ethel Rush, who also had the best collection of sedums and the best flowering succulent, *Sedum hispanicum* L.

A Cup for the best succulent, *Ceropegia dichotoma* Haw., presented by the Vermont-Manchester Business Association, was won by Mrs. Maybelle Place, who also had the best collection of Sempervivums.

A Cup for the best club exhibit, presented by the Southwest Cactus Growers, went to the Epiphyllum Society of America.

A Cup for the best pot-grown specimen, *Hoya carnosa* R. Br., was won by Mr. Prody, and presented by Mr. W. O. Bright. This also won an award, presented yearly, by Mr. J. R. Brown.

A Cup, presented by the Southside Chamber of Commerce, went to Mrs. Mayme Abercrombie for her *Haworthias* which were judged the best genus in the show.

A Cup for the best decorative arrangement, presented by the Southwest Cactus Growers, went to Mrs. Barbara Poindexter.

One year's subscription to the El Centro Desert Magazine, presented by the Southwest Wave, went to Dr. E. D. Busby for his fine Yucca wood mosaic pictures.

Five hundred business cards, presented by the Southwest Topics, went to Mrs. Gertrude Beahm, of Pasadena, for her Commercial Exhibit.

Mr. George Glade, of Los Angeles, had the best entry by one who had never exhibited before.

Mr. Waldie Abercrombie, Jr., had the best collection of Malacocarpus. Mr. Roy Miller had the best collection of Euphorbias. Mr. Homer Rush had the best collection of Echeverias. Mr. Edward Taylor had the best collection of Crassulas, Pelargoniums, Anacampteros, Conophytums and Huernias.

Mrs. Frank Cariss won an award with a fine specimen plant, as did Mr. W. O. Bright, who also won another award with his fine colored post cards. Mrs. Hazel Miller won an award with her collection of cacti and other succulents. Miss E. Genrich entered some cactus bowls and jars which received awards. Mr. Thor Methven Bock had a fine water color of *Cereus Hildmannianus* Schun., which won an award. Mr. Charles Herman won an award with his table of Haworthias. The Southwest Mineralogists won an award for their fine entry. An award was given for the fine club entry of the Southern California Cactus Exchange and for the fine pictures from the Long Beach Cactus Club.

Noncompetitive exhibits included the three Magazines, *The Cactus and Succulent Journal*, the *El Centro Desert Magazine* and the *Desert Plant Life Magazine*. Billy Olin had a fine display of Cephalocereus and Mr. Elmer Herman had a commercial exhibit. The Southwest Cactus Growers showed some of their activities, herbarium specimens, books, photographs, field trips, and notes on various subjects.

E. S. TAYLOR,

Chairman Publicity Committee.

MAGAZINE REVIEW

ARIZONA HIGHWAYS, monthly magazine, published by Arizona Highway Department, Phoenix, Arizona. Raymond Carlson, editor. Price ten cents per copy. \$1.00 a year.

If your resistance to travel lure is low and the budget slim do not, I beg of you, dip into ARIZONA HIGHWAYS.

An escape into the land of enchantment, this magazine—the March issue is its Salute to Spring—appeals alike to nature lover, scientist and student, to say nothing of camera fans and lovers of the wild and woolly West. An article on the Casa Grande National Monument will convince the archaeologist, for example, that Arizona abounds in ancient treasures ranging from ruins thirty feet high to ceremonial sets and shell beads made with stone tools whose delicate workmanship testifies to the artistic nature of Arizona's prehistoric Indian people. And prehistoric they are. Judging from pit houses discovered, the valleys were inhabited about 300 B. C.. At the time when the Renaissance was about to dawn in Europe—1300 to 1450 A. D., these Indians had sufficient engineering skill to build houses of a calcareous deposit, whose walls exist today. In these pages also, old mining towns come to life and stage coaches clank through areas now known as the "Dude Ranch Capital of the World." Indeed one town has adopted this phrase as its slogan.

Most of us would not associate Arizona with roses, yet Tombstone boasts of the largest rose bush in the

world. The oldest Protestant church in Arizona likewise exists in Tombstone, according to ARIZONA HIGHWAYS.

The cactus addict, however, will exclaim with joy over the March issue. A "Family Album" shows lovely photographs and gives brief informative descriptions of representatives of the important genera from the baby Pincushion to the gigantic Saguaro.

Messrs. R. H. Peebles and Harvey Parker of the U. S. Department of Agriculture, at Sacaton, contribute a noteworthy article entitled "Watching the Saguaro Bloom." For some time scientists had been puzzled as to whether the Saguaro is night-blooming. The question was evaded rather than answered. Now, however, due to the research of Mr. Peebles and Mr. Parker, the answer to that question is definitely Yes.

"In the past flowering season," write these authors, "we took the trouble, and a very pleasant 'trouble' it turned out to be, to sit up with the giants for a few nights. Several evenings of quiet observation in the starlit hills alone with the giants put an end to our doubts. We found the saguaro to be night-blooming, in fact a 'night-blooming cereus.' The flowers, although truly nocturnal, do not wither until late the following afternoon, but to our knowledge they never last longer than twenty-one hours. Our photographs show how and when the flowers open."

Five photographs accompanying this article show the various flowering stages of the Saguaro blossoms from 9 P. M. until 10 A. M. HILDEGARDE SMITH.



FIG. 64

Crassula perfoliata

The power and persistence of the life force under conditions of extreme adversity is hopefully illustrated by the photograph accompanying this item. The subject is a half leaf, not even broken off at the base but in the middle, which lay neglected in sun, rain, and wind for a whole winter and spring. It put out hopeful rootlets

in such a position that they could never reach the soil and, not to be balked by even such a calamity, finally made a flower shoot and came into full bloom. Your true gardener will rejoice at finding a garden subject at once so beautiful and so resistant to abuse, and in times like ours it is stimulating to find life bringing forth beauty in defiance of all imaginable adversity.

MILDRED ORPET, Santa Barbara, Calif.



FIG. 65

Euphorbia Collection of C. W. Armstrong, Vancouver, B.C.

- | | | | |
|------------------------|-------------------------|-----------------------------|-----------------------------------|
| 1. <i>coerulescens</i> | 10. <i>candelabra</i> | 19. <i>lignosa</i> | 28. <i>heptagona</i> |
| 2. <i>triangularis</i> | 11. <i>lyttoniana</i> | 20. <i>lactea and crest</i> | 29. <i>officinatum</i> |
| 3. <i>splendens</i> | 12. <i>pseudocactus</i> | 21. <i>stellaeispina</i> | 30. <i>avasmontana</i> |
| 4. <i>ammak</i> | 13. <i>cooperi</i> | 22. <i>venenata</i> | 31. <i>inermis</i> |
| 5. <i>hermentiana</i> | 14. <i>roxleana</i> | 23. <i>canariensis</i> | 32. <i>muirii</i> |
| 6. <i>ingens</i> | 15. <i>stygiata</i> | 24. <i>neutra</i> | 33. <i>bergeri</i> |
| 7. <i>virosa</i> | 16. <i>cereiformis</i> | 25. <i>echinus</i> | 34. <i>caput medusae</i> cutting |
| 8. <i>coerulescens</i> | 17. <i>antiquorum</i> | 26. <i>resinifera</i> | 35. <i>caput medusae</i> seedling |
| 9. <i>cactus</i> | 18. <i>trigona</i> | 27. <i>pentagona</i> | |



FIG. 66

- | | | | |
|-------------------------------|-------------------------|---------------------------------------|--------------------------|
| 36. <i>similis</i> | 47. <i>grandidens</i> | 59. <i>caput medusae</i> crest | 71. <i>truncata</i> |
| 37. <i>ledienii</i> | 48. <i>alcicornis</i> | 60. <i>morinii</i> | 72. <i>submamillaris</i> |
| 38. <i>grandicornis</i> | 49. <i>mauritanica</i> | 61. <i>gardeniaefolia</i> | 73. <i>marlotii</i> |
| 39. <i>lemairiana</i> | 50. <i>atropurpurea</i> | 62. <i>aggregata</i> | 74. <i>pseudoglobosa</i> |
| 40. <i>frankiana</i> | 51. <i>schimperi</i> | 63. <i>c. m. commelina</i> | 75. <i>frickiana</i> |
| 41. <i>neritifolia</i> | 52. <i>arborescens</i> | 64. <i>pfersdorfi</i> | 76. <i>globosa</i> |
| 42. <i>caput medusae</i> | 53. <i>stolonifera</i> | 65. <i>valida</i> crest | 77. <i>polycephala</i> |
| 43. <i>abyssinica</i> | 54. <i>handiensis</i> | 66. <i>meloformis</i> | 78. <i>ornithopus</i> |
| 44. <i>abyssinica eritrea</i> | 55. <i>bulbalina</i> | 67. <i>meloformis prolifera</i> | 79. <i>tridentata</i> |
| 45. <i>pedilanthus</i> | 56. <i>polyacantha</i> | 68. <i>valida</i> x <i>meloformis</i> | 80. <i>stapeliformis</i> |
| 46. <i>antispybilitica</i> | 57. <i>mamillaris</i> | 69. <i>meloformis</i> x <i>obesa</i> | |
| | 58. <i>susannae</i> | 70. <i>obesa</i> | |

SPECIAL THIS MONTH, \$1 POSTPAID

Four unusually interesting spotted and variegated plants:

Adromischus maculatus heavily mottled.

Adromischus Cooperi hybrid gray fingers, purple spotted.

Kalanchoe tomentosa downy gray with brown spotted margin.

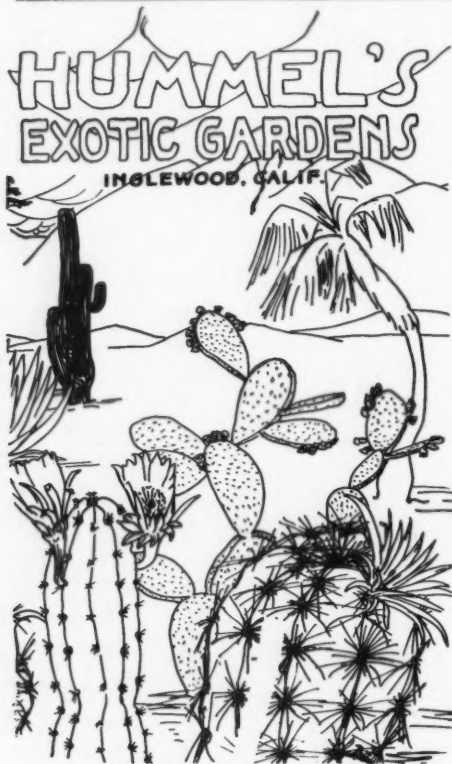
Portulacaria afra variegata cream and pink and green.

Free Illustrated Catalogue No. 5

Californians send 3c tax, please

KNICKERBOCKER NURSERY

P. O. Route 3, San Diego, Calif.



CACTUS SEED 1941 crop. *Cephalocereus senilis* seed now ready. 75c per gram, postage paid. Special price in quantity. Assorted cactus 1 to 3 in. 20 varieties of cactus or 20 varieties of succulents 1 to 3 in. for \$1.00. Postage paid in U. S. Wholesale in quantity to dealers.

F. RADLEY

8720 Foothill Blvd., Oakland, Calif.

Ferdinand Schmoll, owner of the Export permit of the Mexican Government, offers his well known plants at reduced prices, and invites the visitors of Mexico to visit his exposition ground in Tasquillo, Hidalgo. On the Highroad Laredo—Mexico.

COMMERCIAL DEALERS

QUALITY HILL CACTUS HOME

CACTUS AND SUCCULENTS

559 Evanston Ave.

Kansas City, Mo.

THE CACTUS GARDENS—Formerly FITZPATRICK'S

WHOLESALE AND RETAIL CACTUS AND SUCCULENTS

700 South Closner Blvd.

Edinburg, Texas

R. W. POINDEXTER NURSERY

WHOLESALE GROWERS CACTI AND SUCCULENTS

1000 N. Temple St.

Compton, Calif.

KNICKERBOCKER NURSERY

CACTI AND SUCCULENTS

Route 3

San Diego, Calif.

CACTUS AND SUCCULENTS



Our new 1941 seed and plant catalog now ready. Price 10c postpaid. With Amateur's Surprise Packet—100 mixed seed 25c. Unillustrated price list free.

R. W. KELLY

Box 235-C, Temple City, Calif.

12 large native cacti, botanically labelled, no two alike. \$1.00 F.O.B. Eastland, Texas

EXOTIC PLANT CO.

Eastland, Texas

CACTUS AND SUCCULENT JOURNAL
TEN YEAR INDEX

Your back issues will be more usable if you have this 10-year cumulative index of 20,000 references. Mr. E. M. Baxter devoted a year's spare time to compiling this work. Most of the known plants are listed, as well as the names of people who have made cactus history these last ten years. Bound in cloth, 60 pages \$1.50 postpaid. Box 101, Pasadena, Calif.

CHECK LIST

<i>Cactus Journal</i> —1 year.....	\$ 3.00
<i>California Cactus</i> —Baxter	1.00
<i>The Stapelieae</i> (3 volumes)—White and Sloane	12.50
<i>The Cactus Book</i> —Houghton	2.25
<i>Cacti</i> —Borg	6.60
<i>Cacti for the Amateur</i> —..... Paper \$1.00; Cloth	2.00
<i>Succulents for the Amateur</i> —Paper \$1.50; Cloth	2.00
<i>Pronouncing Glossary</i> —Marshall, Woods.....	3.85
<i>Arizona Cacti</i> —new edition	1.00

Postpaid in U. S. A. Foreign add 20c per volume
Box 101, Pasadena, Calif.

Our cacti price list now ready for distribution. Some very attractive offers. Over twelve years in the business. Wholesale and retail. Drop us a card for our price list. Supplements of special offers added from time to time.

A. R. DAVIS

P. O. Box 167, Marathon, Texas

We do not attempt to edit the names of plants appearing in the advertisements.

